# Work Order ID 117800

*Tuesday, July 08, 2014 9:01:08 AM*

*117800*



**Item ID:** D4494-042 **Accept** *N900040100* **Setup Start** *NS1*

**Revision ID:** **Stop** *NS2*

**Item Name:** Upper Block Assembly, RH

**Start Date:** 5/5/2014 **Start Qty:** 2.00 *2* **Cust Item ID:**

**Required Date:** 5/16/2014 **Req'd Qty:** 2.00 *2* **Customer:**

**Reference:**

**Approvals:** **Process Plan:** CL **Date:** 14/07/08 **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| Draw Nbr: D4494 | Revision Nbr: REV. D | | | | | | | | |
| 100 | | 0.00 | | | | | | | |
| *100* | | | | | | | | | |
| Bandsaw | **Memo** | 0.00 | | | | | | | |
| Jeaspa Bandsaw | CUT BLANK ~~6.6~~" LONG NA | | | | | | | | |
| | Mat. supplied by Archer. | | | | | | | | |
| 110 | | 0.00 | | | | | | | |
| *110* | | | | | | | | | |
| Purchasing | **Memo** | 0.00 | | | | | | | |
| Purchasing | ISSUE P/O: 24991 | | | | | | | | |
| | TO ARCHUR PRESISION(GLOBUS) | | | | | | | | |
| | C OF C IS REQUIRED C&T | | | | | | | | |
| 120 | QC6- Inspect dimensions to drawing | 0.00 | | | | | | | |
| *120* | | | | | | | | | |
| QC | **Memo** | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

CL 14/07/14 2

14/8/9 (2)

Sunday

2

DQA: _____ Date: _____

# WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

**DISPOSITION**

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

**AGAINST DEPARTMENT/PROCESS**

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---|---|---|---|---|---|---|---|---|---|---|
| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

**Landing Gear**

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

**General**

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

_____
_____
_____

**Work Order ID 117800** *117800*

*Tuesday, July 08, 2014 9:01:08 AM*



**Item ID:** D4494-042 **Accept** *N9000040100* **Setup Start** *NS1*

**Revision ID:** **Stop** *NS2*

**Item Name:** Upper Block Assembly, RH

**Start Date:** 5/5/2014 **Start Qty:** 2.00 *2* **Cust Item ID:**

**Required Date:** 5/16/2014 **Req'd Qty:** 2.00 *2* **Customer:**

**Reference:**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** *NR1*

**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 130 | Chemical Conversion Coat per QSI005 4.1 | 0.00 | | | | 2 | | 14-8-7 | |
| *130* | | | | | | | | | |
| HandFinish | **Memo** | 0.00 | | | | | | | |
| Hand Finishing | | | | | | | | | |
| 140 | QC7-Inspect Chemical Conversion Coat | 0.00 | | | | | | | DAS 41 9-89 |
| *140* | | | | | | 2 | | | |
| QC | **Memo** | 0.00 | | | | | | | 14-8-9 |
| Quality Control | | | | | | | | | |
| 141 | Spray Painting per QSI005 4.2 | 0.00 | | | | | | | DAS 41 9-89 |
| *141* | | | | | | 2 | | | |
| SprayPaint | **Memo** | 0.00 | | | | | | | 14-8-9 |
| Spray Painting | PRIME TEMPO GREY | | | | | | | | |
| | 128927 | | | | | | | | |

DQA: _____ Date: _____

# WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

**DISPOSITION**

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

**AGAINST DEPARTMENT/PROCESS**

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐ ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---|---|---|---|---|---|---|---|---|---|---|
| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

**Landing Gear**

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

**General**

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function

☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
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☐ Part Incorrect
☐ Part Lost/Missing
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☐ Power Loss/Surge

☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

_____
_____
_____

**Item ID:** D4494-042 **Accept** *N900040100* **Setup Start** *NS1*
**Revision ID:** **Stop** *NS2*
**Item Name:** Upper Block Assembly, RH
**Start Date:** 5/5/2014 **Start Qty:** 2.00 *2* **Cust Item ID:**
**Required Date:** 5/16/2014 **Req'd Qty:** 2.00 *2* **Customer:**
**Reference:**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** *NR1*
**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 142 | QC14- Inspect Spray Paint | 0.00 | | | | | | | DAS 38 9-89 14/08/11 |
| *142* | | | | | | 2 | | | |
| QC | **Memo** | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 150 | | 0.00 | | | | | | | |
| *150* | | | | | | 2 | | FF | 14-08-13 |
| Small Fab | **Memo** | 0.00 | | | | | | | |
| Small Fab | install nutplates as per dwg | | | | | | | | |
| 160 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | DAS 16 9-89 14/08/14 | DAS 38 9-89 14/08/14 |
| *160* | | | | | | (2) | | | |
| QC | **Memo** | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

DQA: _____ Date: _____

# WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

**DISPOSITION**

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

**AGAINST DEPARTMENT/PROCESS**

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---|---|---|---|---|---|---|---|---|---|---|
| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

**Landing Gear**

☐ Bending
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☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
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☐ Fit/Function

☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
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☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence

☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

_____
_____
_____

**Item ID:** D4494-042 **Accept** *N900040100* **Setup Start** *NS1*
**Revision ID:** **Stop** *NS2*
**Item Name:** Upper Block Assembly, RH
**Start Date:** 5/5/2014 **Start Qty:** 2.00 *2*
**Required Date:** 5/16/2014 **Req'd Qty:** 2.00 *2*
**Reference:**
**Cust Item ID:**
**Customer:**

**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

**Run Start** *NR1*
**Stop** *NR2*

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 200 | Identify as per dwg & Stock Location: ST230B | 0.00 | | | | | | | |
| *200* | | | | | | 2X | DAS 28 9-89 | | AUG 14 2014 |
| Packaging | **Memo** | 0.00 | | | | | | | |
| Packaging | | | | | | | | | |
| 210 | QC21- Final Inspection - Work Order Release | 0.00 | | | | | | | |
| *210* | | | | | | MLJ | 14-08-15 | | |
| QC | **Memo** | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

14-8-15

# Picklist Print

*Tuesday, July 08, 2014 9:01:07 AM*



**Work Order ID:** 117800 *117800*

**Parent Item:** D4494-042 *D4494-042*

**Parent Item Name:** Upper Block Assembly, RH

**Start Date:** 5/5/2014 **Required Date:** 5/16/2014

**Start Qty:** 2.00 **Required Qty:** 2.00

**Comments:** IPP REV:A NEW ISSUE 13-01-23 JLM VERIFIED BY:DD

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MS20426AD3-4 | | Purchased | No | | | | Each | 5,996.000 | | 8 | | | |
| *MS20426AD3-4* | | | | | | | | | ** | | FF | 14-08-13 | |
| RIVET | | | | | | | | | | | | | |
| | | | | **Location** | | | **Loc Qty** | **Loc Code** | | | | | |
| | | | | ST315 | | | 5996 | | | | | | |
| | | | | | 125578 | | 3274 | | | | | | |
| | | | | | m127432 | | 2722 | | | 8 | | | |
| M6061T6B1.000X04.00 0 | | Purchased | No | | | | f | 103.0490 | | 2 | | | |
| *M6061T6B1.000X04.000* | | | | | | | | | ** | | 04/14/08/20 | | |
| 6061-T6 Bar 1.00 x 4.00 | | | | | | | | | | | | | |
| | | | | **Location** | | | **Loc Qty** | **Loc Code** | | | | | |
| | | | | MAT003 | | | 103.049 | | | NA | | | |
| | | | | | 124681 | | 23.7 | | | | | | |
| | | | | | M126160 | | 10 | | | | | | |
| | | | | | M127797 | | 20.349 | | | | | | |
| | | | | | M128980 | | 1 | | | | | | |
| | | | | | M129167 | | 48 | | | | | | |
| D4494-1P | | Purchased | No | | | | Each | 0.0000 | | 2 | | | |
| *D4494-1R* | | | | | | | | | ** | 1 | 117800 | | |
| Upper Block Lower Door, LH | | | | | | | | | | | | | |
| MS21059L08 | | Purchased | No | | | | Each | 554.0000 | | 4 | | | |
| *MS21059L08* | | | | | | | | | ** | | FF | 14-08-13 | |
| Nut | | | | | | | | | | | | | |
| | | | | **Location** | | | **Loc Qty** | **Loc Code** | | | | | |
| | | | | ST508 | | | 554 | | | | | | |
| | | | | | 123185 | | 1 | | | | | | |
| | | | | | 125654 | | 553 | | | 4 | | | |

DQA: _____ Date: _____

# WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

**DISPOSITION**

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

**AGAINST DEPARTMENT/PROCESS**

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

| Root Cause | | Date | Step | Qty | Description of work order update or non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---|---|---|---|---|---|---|---|---|---|---|
| Design | ☐ | | | | | | | | | |
| Doc/Data | ☐ | | | | | | | | | |
| Equip/Tooling | ☐ | | | | | | | | | |
| Handling/Pre | ☐ | | | | | | | | | |
| Material | ☐ | | | | | | | | | |
| Operator | ☐ | | | | | | | | | |
| Offset/Setup | ☐ | | | | | | | | | |
| Process | ☐ | | | | | | | | | |
| Supplier | ☐ | | | | | | | | | |
| Training | ☐ | | | | | | | | | |
| Transport | ☐ | | | | | | | | | |
| Unapproved | ☐ | | | | | | | | | |

**FAULT CATEGORY**

**Landing Gear**

- ☐ Bending
- ☐ Centre Not Concentric
- ☐ Cracks
- ☐ Crimp/Kink/Ripple/Wave
- ☐ Cuffs
- ☐ Crushing
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Marks/Chatter
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

**General**

- ☐ Bend
- ☐ BOM/Route
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- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
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- ☐ Folio/Program
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
- ☐ Mislabeled
- ☐ Misread
- ☐ Off-set
- ☐ Out of Calibration
- ☐ Out of Sequence
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- ☐ Pressure/Forced
- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

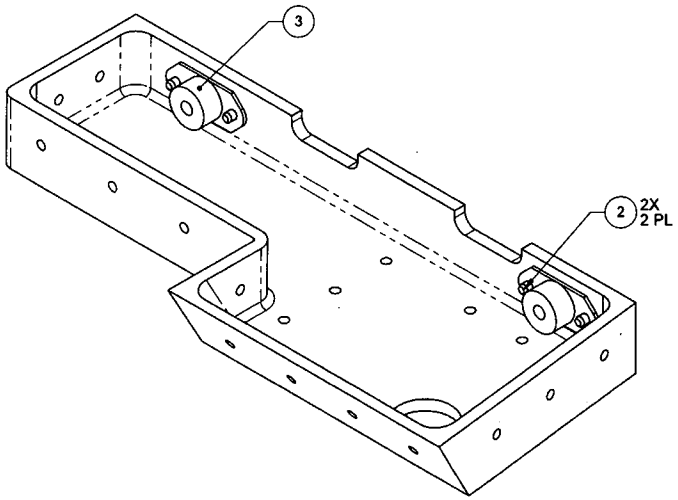
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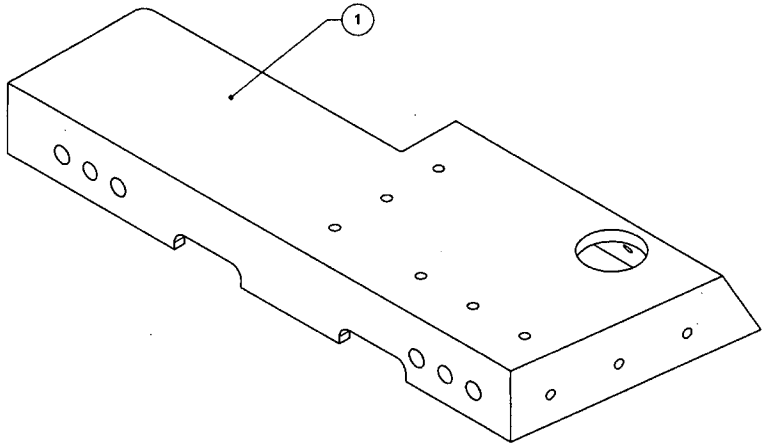
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_____

| ITEM | QTY -042 | P/N | DESCRIPTION |
|---|---|---|---|
| | X | D4494-042 | UPPER BLOCK ASSEMBLY (RH) |
| | | | |
| 1 | 1 | D4494-2 | UPPER BLOCK LOWER DOOR (RH) |
| 2 | 4 | MS20426AD3-4 | RIVET, CSK |
| 3 | 2 | MS21059L08 | NUTPLATE |

CL 14/07/08
W10: 117800




**D4494-042 UPPER BLOCK ASSEMBLY (RH)**

RELEASED
2013 -02- 14

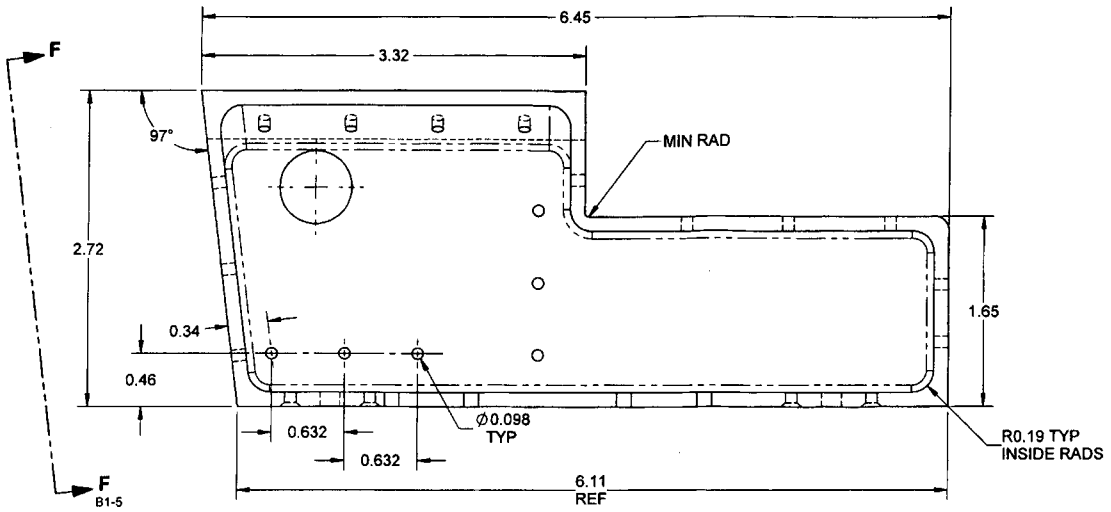
NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: NONE
7) WEIGHT: 0.30 lbs

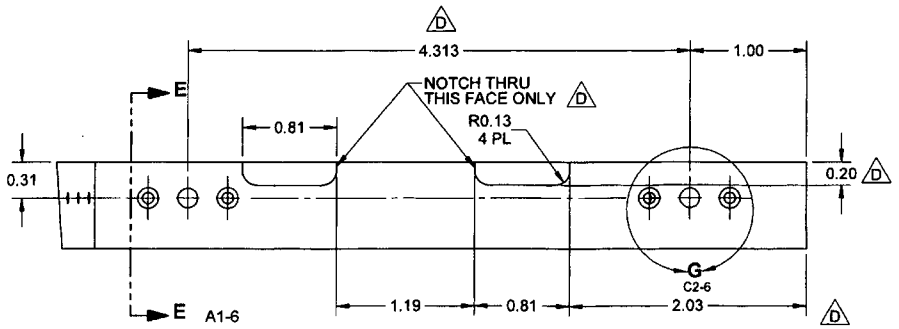
| | |
|---|---|
| DESIGN | AJS |
| DRAWN | AJS |
| CHECKED | A.J. |
| MFG. APPR. | |
| APPROVED | |
| DE APPR. | |
| DATE | 12.12.12 |

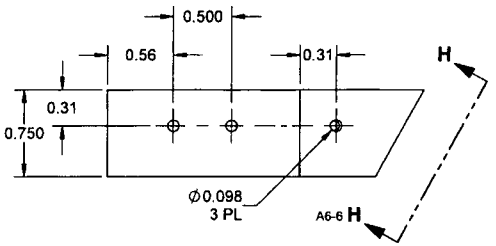
**DART AEROSPACE LTD**
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D4494 REV. D
SHEET 4 OF 6
TITLE UPPER BLOCK ASSEMBLY
SCALE NTS

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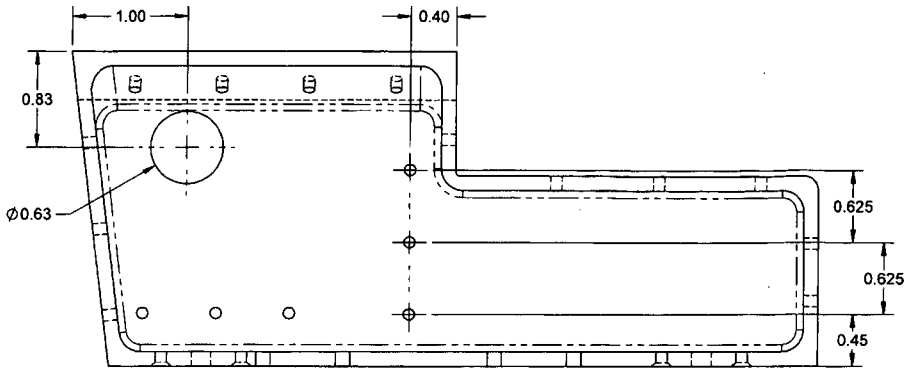

## D4494-2 UPPER BLOCK LOWER DOOR (RH)

NOTES:
1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME TEMPO GREY (4.2.1.3.2) PER DART QSI 005 4.2
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 0.28 lbs
8) RAW MATERIAL SURFACE FINISH SUFFICIENT FOR THIS PART
(NOT NECESSARY TO FACE MATERIAL)

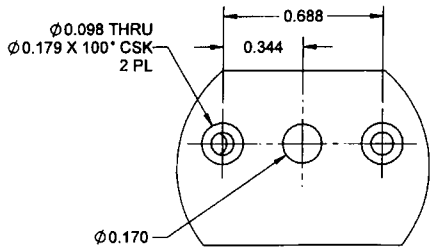
RELEASED
2013 -02- 14

| | | | |
|---|---|---|---|
| DESIGN | AJS | DART AEROSPACE LTD | |
| DRAWN | AJS | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | A.P. | DRAWING NO. | REV. D |
| MFG. APPR. | | D4494 | SHEET 5 OF 6 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | UPPER BLOCK ASSEMBLY | NTS |
| DATE | 12.12.12 | | |

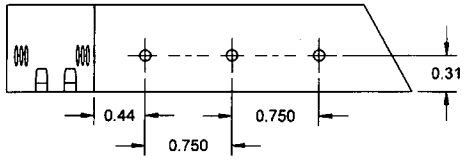
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**SUPPLEMENTAL VIEW**

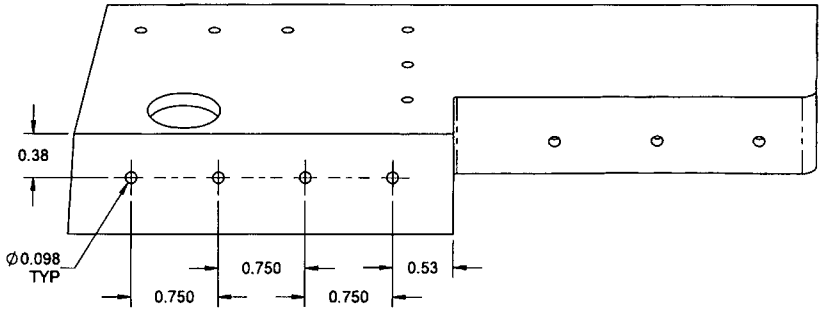



**DETAIL G** B4-5
(SCALE 2X)

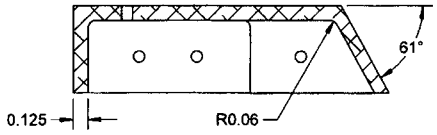



**VIEW F-F** C7-5

RELEASED
2013 -02- 14




**VIEW H-H** B2-5




**SECTION E-E** B6-5

| | | | |
|---|---|---|---|
| DESIGN | AJS | **DART AEROSPACE LTD** | |
| DRAWN | AJS | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | A.P. | DRAWING NO. | REV. D |
| MFG. APPR. | | D4494 | SHEET 6 OF 6 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | UPPER BLOCK ASSEMBLY | NTS |
| DATE | 12.12.12 | | |

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

# PURCHASE ORDER

## Purchase Order ID PO24991

**Purchase Order Date** 7/14/2014
**PO Print Date** 7/14/2014



**Order From :** VC-GLO001

ARCHER PRECISION INC.
2228 GLADWIN CRESENT
OTTAWA, ON K1B 4S6
CA

**Ship To :** DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAXED

| | | | |
|---|---|---|---|
| **Contact Name** | | **Buyer** | Chantal Lavoie |
| **Vendor Phone** | 613 899 2405 | **Customer POID** | |
| | | **Customer Tax #** | 10127-2607 |
| **Ship To Contact** | | **Terms** | Net 30 |
| **Ship To Phone** | | **Currency** | CAD |
| **Ship Via:** | FedEx PI ppd | **FOB** | FCA – (Free Carrier) |
| **Ship Acct:** | | | |

| Line Nbr | Reference / Vendor Part Number / Line Comments / Delivery Comments | Description/ Mfg ID | Req Date/ Taxable / Promise Date | CD | Req Qty/ Unit of Measure | PO Unit Price | Extended Price |
|---|---|---|---|---|---|---|---|
| 1 | D4494-1P | Upper Block Lower Door, LH | 7/29/2014 | | 2.00 | $223.00 | $446.00 |
| | | | Yes | | Each | | |
| | | | 7/29/2014 | | | | |
| | MACHINE AS PER DWG D4494 REV. D<br>B121925 | | | | | | |
| | | | | | | **Line Total:** | **$446.00** |
| 2 | D4494-2P | Upper Block Lower Door, RH | 7/29/2014 | | 2.00 | $223.00 | $446.00 |
| | | | Yes | | Each | | |
| | | | 7/29/2014 | | | | |
| | MACHINE AS PER DWG D4494 REV. D<br>B117800 | | | | | | |
| | | | | | | **Line Total:** | **$446.00** |

**Note:**

# Packing Slip

ARCHER PRECISION
2228 Gladwin Crescent
Ottawa, Ontario
K1B 4S6
Phone # 613-899-2405

| Date | Invoice # |
|---|---|
| 8/6/2014 | 1113 |

| Ship To |
|---|
| Main Finished Goods Location<br>Dart Aerospace<br>1270 Aberdeen Street<br>Hawksbury, Ontario<br>K6A 1K7 |

| P.O. No. | Ship | Via | FOB | Project |
|---|---|---|---|---|
| 24991 | 8/6/2014 | delivered | Archer | |

| Qty | Item Code | Description |
|---|---|---|
| 2 | Sales | D4494-1P |
| 2 | Sales | D4494-2P |
| | | HST (ON) on sales |

ARCHER PRECISION

2228 Gladwin Cres.
Ottawa, Ont.
K1B 4S6

Telephone (613) 899-2405
Fax (613) 226-1719

# Certificate of Compliance

To:
Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury Ont.
K6A 1K7

6 Aug 2014

| Po Number | Part Number | Quantities |
|---|---|---|
| | | |
| 24991 | D4494-1P | 2 |
| | D4494-2P | 2 |
| | | |
| | | |

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 24991 issued by Dart Aerospace Inc.

Greg Kumpula
Quality Inspector
Archer Precision Inc.
2228 Gladwin Cress.
Ottawa, Ontario
K1B 4S6

# THYSSENKRUPP MATERIALS NA

**Certificate of Mill Test Results**

ARCHER PRECISION INC.

PO/Rel 609

BL VIM-431896-004 25Jul14

ALUMINUM FLAT BAR 6061-T6511
1.00" x 3.00" X 6.7500"
PART NO.

Nous certifions que le document reproduit ici est une copie conforme du rapport fourni par le producteur du materiel ou les donnees resultant de l'analyse faite par un laboratoire qualifie.
SIGNE PAR: _____



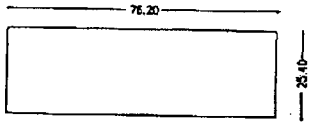
## LB ALUMINIUM BERHAD
(138535-V)

*ALUMINIUM EXTRUSION*

## TEST CERTIFICATE

| | | |
|---|---|---|
| CUSTOMER : THYSSENKRUPP MATERIALS NA | SECTION NO. : PE01419MT03660 | DATE : Apr-04-2014 |
| SALES ORDER NO : 1406037 | WORK ORDER : 401440 | ALLOY : 6061-T6511 |
| PRESS NO. : 3000 | EXTRUSION DATE : Mar-26-2014 | CERTIFICATE NO. : MCERT1403141 |
| CUSTOMER PO NO. : VIM-625144 | | |

Section Sketch :




Thickness = 25.40 mm

THYSSEN KRUPP QC1

**CHEMICAL COMPOSITION**

| Composition | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Al | Analysis Ref.- |
|---|---|---|---|---|---|---|---|---|---|---|
| Min | 0.40 | 0.00 | 0.15 | 0.00 | 0.80 | 0.04 | 0.00 | 0.00 | Remainder | E4A1105A Feb-02-2014 |
| Max | 0.80 | 0.70 | 0.40 | 0.15 | 1.20 | 0.35 | 0.25 | 0.15 | | |
| Actual | 0.650 | 0.130 | 0.200 | 0.100 | 0.900 | 0.090 | 0.010 | 0.011 | | |

**MECHANICAL PROPERTIES** ( Result shown is tested by LBALUM )

| | Tensile Strength N/mm² | Yield Stress N/mm² | Elongation ( % ) |
|---|---|---|---|
| Standard | 260 | 240 | 6 |
| Result | 367.25 | 343.53 | 16.80 |

Compliance with ASTM B221M-07

We hereby certify that the material covered by this report has been verified or tested according to the seller standard sampling method or the requirements of any specifications or requirements described herein, and that sample representative of the material met the composition limits and had the mechanical properties shown. Also, note that mercury is not a normal contaminant in aluminium alloys. Neither mercury nor any of its compounds are used in the manufacture of our extrusion. This certificate conforms to 3.1, EN 10204.

** This certificate of Analysis has been produced electronically and is valid without signature **

Lot 11, Jalan Perusahaan 1, Kawasan Perusahaan Beranang, 43700 Beranang, Selangor Darul Ehsan, Malaysia.
Tel: 603-8723 8822 (15 Lines) Fax: 603-8723 3191 (General), 8723 7272 (Sales), 8727 1218 (Export)
Enquiry@lbalum.com.my www.lbalum.com

ARCHER PRECISION

# Archer Precision

Short date 8/6/14

Plan Name D4494-1_RevD

Customer: Dart Aerospace

u_jobnum * u_jobnum *

Customer PO.: * u_Cuspo *

u_mtl * u_mtl *

Part No.: D4494-1P

Rev.: D

u_qtynu * u_qtynu *

BSN:

Incr. Smpl No.: 1

| Name | ID | Actual | Nominal | pos Tol | neg Tol | Diff | <--\|--> |
|---|---|---|---|---|---|---|---|
| 1 - OA Length | X | 6.44499 | 6.44507 | 0.03000 | -0.03000 | -0.00008 | -\| |
| 2 - Egde | X | 3.31869 | 3.32007 | 0.03000 | -0.03000 | -0.00138 | -\| |
| 3 - Angle of Side | A2 | 7.01766 | 7.00000 | 0.50000 | -0.50000 | 0.01766 | \|- |
| 4 - OA Width | Y | 2.72137 | 2.72137 | 0.03000 | -0.03000 | 0.00000 | \| |
| 5 - Length | CartDist | 6.10925 | 6.11000 | 0.03000 | -0.03000 | -0.00075 | -\| |
| 6 - Egde | CartDist | 1.64589 | 1.65000 | 0.03000 | -0.03000 | -0.00411 | -\| |
| 7 - Exterior Radius | R | 0.12462 | 0.12500 | 0.01000 | -0.01000 | -0.00038 | -\| |
| 8 - Interior Rad | R | 0.18965 | 0.19000 | 0.01000 | -0.01000 | -0.00035 | -\| |
| 9 - XPosition Hole1 | X | 0.99751 | 0.99688 | 0.03000 | -0.03000 | 0.00062 | \|- |
| 10 - YPostion Hole1 | Y | 0.83141 | 0.82693 | 0.03000 | -0.03000 | 0.00448 | \|- |
| 11 - Diam_ Hole1 | D | 0.62717 | 0.62500 | 0.00800 | -0.00100 | 0.00217 | --\| |
| 12 - Angle Front | A2 | -29.03105 | -29.00000 | 0.50000 | -0.50000 | -0.03105 | -\| |
| 13 - Thickness | CartDist | 0.12363 | 0.12500 | 0.01000 | -0.01000 | -0.00137 | -\| |
| Pocket Depth | Z | -0.62569 | -0.62500 | 0.01000 | -0.01000 | -0.00069 | -\| |

NOTES

1. HOLE SET 2, 3A, 3B, 3C #30 ALL VARIFIED CORRECT BY HAND MEASUREMENTS / GK.

2. CUTS MATCH CAD PROVIDED / GK.